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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/606,368

06/25/2003

Alfred Kleinen

175.7833USU

2793

7590

03/04/2005

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EXAMINER

BELLAMY, TAMIKO D

ART UNIT

PAPER NUMBER

2856

DATE MAILED: 03/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/606,368

Applicant(s)

KLEINEN ET AL.

Examiner

Tamiko D. Bellamy

Art Unit

2856

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-5 and 7 is/are rejected.
- 7) ☒ Claim(s) 6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Amendment dated 1/7/05 has been received and entered. Claim 1 has been canceled.

Claims 2-7 are currently pending.

Specification

2. A substitute specification excluding the claims is required pursuant to 37 CFR 1.125(a) because the specification (see pg. 2) under the Summary of the Invention, mentions a magnet injected into a fuel-resisting plastic of the lever, and a sensor freely programmable. However, in the detailed description, it does not.
3. A substitute specification must not contain new matter. The substitute specification must be submitted with markings showing all the changes relative to the immediate prior version of the specification of record. The text of any added subject matter must be shown by underlining the added text. The text of any deleted matter must be shown by strike-through except that double brackets placed before and after the deleted characters may be used to show deletion of five or fewer consecutive characters. The text of any deleted subject matter must be shown by being placed within double brackets if strike-through cannot be easily perceived. An accompanying clean version (without markings) and a statement that the substitute specification contains no new matter must also be supplied. Numbering the paragraphs of the specification of record is not considered a change that must be shown.

Claim Rejections - 35 USC § 102

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4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

5. Claims 3, 4 and 7 are rejected under 35 U.S.C. 102(a) as being anticipated by Tamura et al. (JP 2001124616A) in view of Diaz (6,762,679).

Re to claim 3, Tamura et al. discloses in figs. 2 and 3, a housing (e.g. sensor frame 17) in which a contactless sensor (e.g. IC 45) is arranged. As depicted in figs. 2 and 3, Tamura et al. discloses that the contactless sensor (e.g., IC 45) is operatively connected with a magnet (43) that moves relative to a sensor (e.g. IC 45) upon movement of a float arranged at a first end of a lever (e.g. float arm 3) so that the change of magnetic field acting upon the sensor (e.g. IC 45) is transformed into a electric signal so that an output signal corresponding to the level of liquid is obtained (pg. 3, par. 30). As depicted in fig. 2, Tamura et al. discloses the lever arm (e.g. float arm 3) is rotatably connected with the housing (e.g., sensor frame 17) and supported by a arm holder (19). Tamura et al. inherently connects the contactless sensor (e.g., IC 45) to an evaluating unit via terminal (47). It is well known in the art to use evaluating unit with a contact sensor. Evidence is found in Diaz, which discloses in fig. 1, connecting a contactless sensor (e.g. hall sensor probe 11a) to an evaluating unit (e.g., processing unit 11b) via cable (15).

Re to claim 4, as depicted in figs. 2 and 3, Tamura et al. discloses a sensor (e.g., IC 45) that is freely programmable (pg. 1, claim 1).

Re to claim 7, as depicted in fig. 2, Tamura et al. discloses that the lever arm (e.g. float arm 3) is rotatably connecting the housing (e.g. sensor frame 17) and supported by means of a clipping or locking engagement (e.g., combination of an inserting the attachment shaft (39) of the sensor housing (17) into the hole (37) of the arm holder (19) and inserting a snap ring (41) in slot (39a); and affixing the float arm (7) to the arm holder (19) via clips (33,35))(pg. 2, par.22).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tamura et al. (JP 2001124616A).

Re to claim 2, as depicted in fig. 3, Tamura et al. discloses that at least a segment of the magnet (43) is embedded into the body (19a) of the float arm holder (19), which supports the lever (e.g. float arm 3) (Pg. 3, par. 30). Tamura et al. does not specifically disclose that the magnet is adapted to be injected into a fuel-resistant plastic material of the lever. However the court held in, In re Leshin, 227 F.2d 197, 125 USPQ 416 (CCPA 1960), that the selection of a known material based upon its suitability for the intended use is a design consideration within the skill of the art. Therefore, to employ Tamura et al. on a magnet is adapted to be injected into a fuel-resistant plastic material on would have been obvious to one of ordinary skill in the art at the time of the invention since this

reference explicitly teaches its use on a liquid level sensor including a magnet embedded in the lever.

Re to claim 5, as depicted in fig. 3, Tamura et al. discloses a sensor (e.g., IC 45) arranged on a printed circuit board and integrated into the housing (e.g., sensor frame 17). Tamura et al. does not specifically disclose that the printed circuit board has a fuel-resistant plastic injected around. However, the court held in, In re Leshin, 227 F.2d 197, 125 USPQ 416 (CCPA 1960), that the selection of a known material based upon its suitability for the intended use is a design consideration within the skill of the art. Therefore, to employ Tamura et al. on a printed circuit board having a fuel-resistant plastic injected around would have been obvious to one of ordinary skill in the art at the time of the invention since this reference explicitly teaches its use on a liquid level sensor including a magnet embedded in the lever.

Allowable Subject Matter

8. Claim 6 is objected to as being dependent upon a rejected base claim 3, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamiko D. Bellamy whose telephone number is (571)

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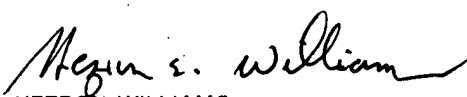
272-2190. The examiner can normally be reached on Monday - Friday 7:30 AM to 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tamiko Bellamy

T.B.
March 2, 2005


HEZRON WILLIAMS
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